

**REMARKS**

Applicant has carefully reviewed and considered the Office Action mailed on September 24, 2003, and the references cited therewith.

Applicant has proposed an amendment to claim 1. No claims are canceled, and no claims are added; as a result, claims 1-30 remain pending in this application.

**In the Claims**

Applicant has respectfully proposed that claim 1 be amended as indicated in the listing of claims.

Applicant respectfully requests that this amendment be entered because Applicant submits that the amendment will place claim 1 in condition for allowance.

**§102 Rejection of the Claims**

Claims 1-8, 10-11, 13-22, 24-25, 27-28 and 30 were rejected under 35 USC §102(b) as being anticipated by Eng et al. (U.S. 5,638,092). Applicant respectfully traverses this rejection because Eng does not anticipate the claimed invention, as set forth in claims 1, 13, 18, and 27.

Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. *In re Dillon* 919 F.2d 688, 16 USPQ 2d 1897, 1908 (Fed. Cir. 1990) (*en banc*), cert. denied, 500 U.S. 904 (1991). It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, “[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*” *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added).

Applicant respectfully submits that the Office Action did not make out a *prima facie* case of anticipation because the reference does not teach each and every claim element. In the following discussion of the claims rejected under 35 USC §102, Applicant will show how the sensors on Eng’s ring are different from the sensor unit of the claimed invention. In particular, Applicant will show that Eng’s sensors determine whether switches have been activated and

transmit non-position data. In order to show this and other differences, Applicant will first present a brief summary of Eng. Next, Applicant will discuss the rejected claims in light of Eng.

Eng will now be summarized. Eng teaches a “cursor control system for moving a cursor on a computer screen in response to movement of a ring over a keyboard.” Eng at Abstract. The ring includes an on/off switch and one or more click switches. Sensors in the ring determine whether these switches have been activated. When a switch is activated, sensors cause a transmitter in the ring to generate fast-changing signals, which “are used to communicate encoded or non-encoded non-position data.” Eng at col. 7, line 15. That is, the sensors detect when a user touches the ring switches and cause a transmitter to generate non-position data signals (i.e., data signals that are not used to determine cursor position).

After the transmitter circuit is turned on (i.e., the on/off switch has been activated), the transmitter circuit transmits a signal to a receiver attached to a computer keyboard. The keyboard receiver detects transmitter circuit movement over the keyboard by detecting changes in the signal strength. Moving the transmitter (i.e., the ring) over the keyboard causes slow-changing signal strength, which is used to move the cursor on the computer screen. Therefore, the keyboard receiver is used for creating positional information (i.e., determining cursor position based on the ring transmitter circuit’s position relative to the keyboard receiver), while the ring sensors are used for determining whether switches have been activated.

The claimed invention does not determine cursor position based on a ring’s proximity to a keyboard receiver. In contrast, the claimed invention employs ring sensors that create position information regardless of ring-to-keyboard proximity. In particular, proposed independent claim 1 recites a sensor unit “wherein the sensor unit is adapted to create position information, and wherein the sensor unit is mounted on the ring.” In contrast, as noted above, Eng describes sensor units that communicate non-positional data. Because claim 1, amended as proposed, recites sensors that create position information, while Eng teaches sensors that communicate non-positional information, Applicant submits that Eng does not teach each and every element of amended independent claim 1.

Independent claim 13 recites a method for moving a pointer on a display “creating position information for the pointer based on which one of the plurality of sensors was activated.” In contrast, as noted above, Eng describes sensor units that are used to communicate

non-positional information. Thus, independent claim 13 includes sensors that create position information, whereas Eng teaches sensor units that communicate non-positional information. As such, Eng does not teach each and every element of independent claim 13.

Independent claim 18 recites a pointing device that includes a controller that is “to translate a signal from the sensor unit into movement information”. In contrast, as noted above, Eng describes sensor units that are used to communicate non-positional information. Thus, independent claim 18 includes sensors that create signals that are translated into movement information, whereas Eng teaches sensor units that communicate non-positional information. As such, Eng does not teach each and every element of independent claim 18.

Independent claim 27 recites a method for moving a pointer on a display “creating position information for the pointer based on which one of the plurality of sensors was activated.” In contrast, as noted above, Eng describes sensor units that are used to communicate non-positional information. Thus, independent claim 27 includes sensors that create position information, whereas Eng teaches sensor units that communicate non-positional information. As such, Eng does not teach each and every element of independent claim 27.

Claims 2-8, 10-11, 14-22, 24-25, 28, and 30 depend, directly or indirectly, from independent claims 1, 13, 18 and 27, respectively. Therefore, the rejected dependent claims include all the limitations recited in independent claim claims 1, 13, 18 and 27. For the reasons discussed above, and the limitations recited in the claims, Applicant respectfully submits that Eng does not teach each and every element of defendant claims 2-8, 10-11, 14-22, 24-25, 28, and 30.

#### §103 Rejection of the Claims

Claims 9, 12, 23, 26 and 29 were rejected under 35 USC §103(a) as being unpatentable over Eng et al. in view of Russell (U.S. 5,481,265). Applicant respectfully traverses this rejection because the Office Action has not made a *prima facie* case of obviousness.

The Examiner has the burden under 35 U.S.C. §103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). To do that the Examiner must show that some objective teaching in the prior art or some knowledge

generally available to one of ordinary skill in the art would lead an individual to combine the relevant teaching of the references. *Id.*

The *Fine* court stated that:

Obviousness is tested by "what the combined teaching of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 878 (CCPA 1981)). But it "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." *ACS Hosp. Sys.*, 732 F.2d at 1577, 221 USPQ at 933. And "teachings of references can be combined *only* if there is some suggestion or incentive to do so." *Id.* (emphasis in original).

The M.P.E.P. adopts this line of reasoning, stating that

In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. M.P.E.P. § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)).

Applicant respectfully submits that dependent claims 9, 12, 26, and 29 are allowable over the cited references because the Office Action has not established a *prima facie* case of obviousness. The MPEP § 2143.03 states, "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)." The Office Action has not rejected the corresponding independent claims as being obvious over the cited references; thus, those independent claims are not obvious. Because the corresponding independent claims are not obvious, dependent claims 9, 12, 26, and 29 are not obvious. Therefore, Applicant respectfully submits that dependent claims 9, 12, 26, and 29 are allowable over the cited rejections.

Additionally, Applicant respectfully submits that the Office Action has not established a *prima facie* case of obviousness for dependant claims 9, 12, 23, 26, and 29,because there is no teaching or suggestion to combine the cited references. The Office Action does not cite a passage from Eng or Russell that teaches or suggests combining the teachings of the references.

Without such a citation, Applicant respectfully submits that the Office Action relied on the Applicant's disclosure and/or impermissible hindsight in forming the rejection of claims 9, 12, 23, 26, and 29 under 35 USC §103 over the cited references. As such, Applicant respectfully requests that this rejection be withdrawn.

Applicant also submits that the Office Action does not make out a *prima facie* case of obviousness regarding dependent claims 9, 12, 23, 26, and 29 because neither Eng nor Russell, alone or in combination, teach or suggest all the limitations of the dependent claims 9, 12, 23, 26, and 29. Claims 9, 12, 23, 26, and 29 are dependent claims and therefore include all the limitations of the claims from which they depend.

Claims 9 and 12 depend from amended independent claim 1. As discussed above, claim 1, amended as proposed, recites sensors that create position information, whereas Eng teaches sensor units that communicate non-positional information. Russell teaches an ergonomic customizable user/computer interface system for wireless computer control with a base interface device to receive the transmissions, decode the information, and provide control signals to the computer. The only way for the cited combination to teach or suggest all the elements of claims 9 and 12 is for Russell to teach what Eng is lacking. However, the Office Action does not point to a passage in Russell that teaches sensors that create position information, as recited in amended claim 1. Therefore, the cited combination does not teach or suggest all the elements of proposed amended claim 1.

Claims 23 and 26 depend from independent claim 18. As discussed above, independent claim 18 calls for sensors that create signals that are translated into movement information, whereas Eng teaches sensor units that communicate non-positional information. The only way for the cited combination to teach or suggest all the elements of claims 23 and 26 is for Russell to teach what Eng is lacking. However, the Office Action does not point to a passage in Russell that teaches sensors that create signals that are translated into movement information, as recited in independent claim 18. Therefore, the cited combination does not teach or suggest all the elements of independent claim 18.

Claim 29 depends from claim 27. As discussed above, independent claim 27 recites sensors that create position information, whereas Eng teaches sensor units that communicate non-positional information. Russell teaches an ergonomic customizable user/computer interface

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system for wireless computer control with a base interface device to receive the transmissions, decode the information, and provide control signals to the computer. The only way for the cited combination to teach or suggest all the elements of claim 29 is for Russell to teach what Eng is lacking. However, the Office Action does not point to a passage in Russell that calls for sensors that create position information, as recited in independent claim 27. Therefore, the cited combination does not teach or suggest all the elements of independent claim 27.

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Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 349-9592 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

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JIMING SUN

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**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 24 day of November, 2003

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